



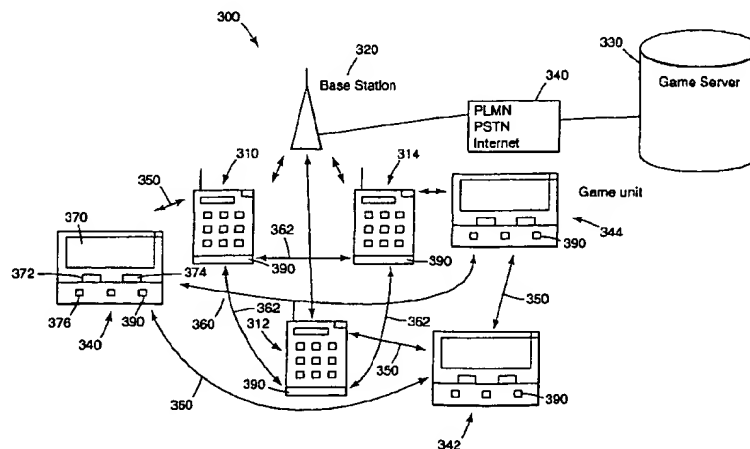
US006524189B1

(12) **United States Patent**
Rautila(10) **Patent No.:** **US 6,524,189 B1**
(45) **Date of Patent:** **Feb. 25, 2003**(54) **MULTI-PLAYER GAME SYSTEM USING
MOBILE TELEPHONE AND GAME UNIT**5,999,808 A * 12/1999 LaDue 463/20
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(List continued on next page.)

(75) **Inventor:** **Heikki Rautila, Helsinki (FI)**(73) **Assignee:** **Nokia Corporation, Espoo (FI)**(*) **Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.**FOREIGN PATENT DOCUMENTS**EP 0 883 077 A1 12/1998
WO 93/23125 * 11/1993
WO 98/17359 4/1998
WO 98/47589 * 10/1998**OTHER PUBLICATIONS**(21) **Appl. No.:** **09/350,330**(22) **Filed:** **Jul. 9, 1999**(51) **Int. Cl.⁷** **A63F 13/00**(52) **U.S. Cl.** **463/40; 463/39**(58) **Field of Search** 463/39-43, 35,
463/16-20; 379/90.01, 93.13O'Brien, "Wireless industry nibbles at Bluetooth" Computer
Dealer News, Willowdale, Dec. 1998.**Primary Examiner*—Michael O'Neill(74) *Attorney, Agent, or Firm*—Crawford PLLC(57) **ABSTRACT**(56) **References Cited****U.S. PATENT DOCUMENTS**5,108,115 A * 4/1992 Berman et al.
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A multi-player game system using a mobile telephone and a game unit is disclosed. The present invention links multiple users having game units with mobile phones using a low power radio link. The present invention includes at least one mobile phone having a first transceiver for providing connections to a cellular network and a second transceiver for providing short-haul connectivity, and a plurality of game units for interfacing with a plurality of players, each of the game units having a third transceiver for providing short-haul connectivity, wherein the mobile phones and the game units are linked by the second and third transceivers therein to enable a game to be played on the game units by the plurality of players. In at least one of the mobile phones, the second transceiver is a short range wireless transceiver. At least one mobile phone is used to download a game to the game units and the game units include a group selection interface for choosing players to include in a gaming group. The mobile phones may be linked to a base station, a game server and a network interconnecting the base station and the game server, wherein the game server provides a game across the network and base station to the mobile phones for play on the game units.

29 Claims, 6 Drawing Sheets



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(12) **United States Patent**
Pettit

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(45) **Date of Patent:** Sep. 3, 2002

(54) **TELE-REMOTE TELEPHONE AND REMOTE CONTROL DEVICE**

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(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 192 days.

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(51) **Int. Cl.⁷** H04B 1/38

(52) **U.S. Cl.** 455/556; 455/550; 455/90

(58) **Field of Search** 455/556, 344, 455/550, 420, 90; 379/56, 61, 93, 96; 345/168, 169, 170; 348/14, 15, 176

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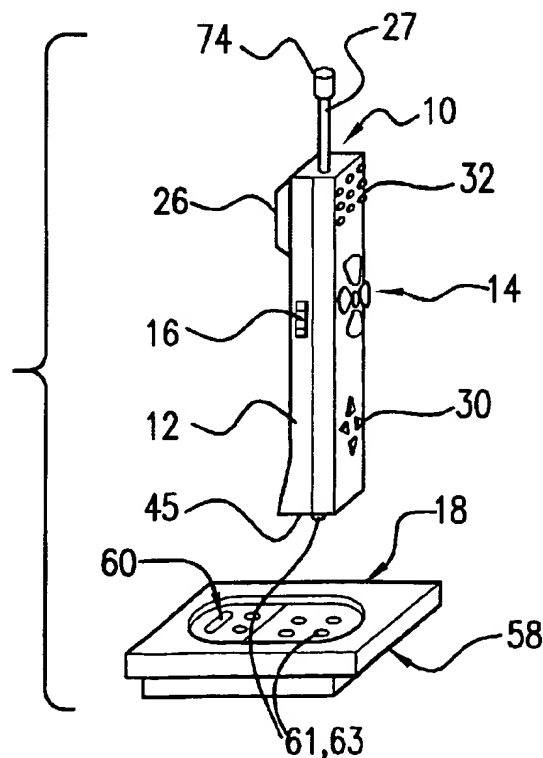
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(57) **ABSTRACT**

A teleremote device includes a cordless or cellular telephone in combination with a remote controller for a television, VCR, satellite receiver, DVD device, and/or video game controller. The telephone and remote control device are provided in a single rechargeable unit. The device includes a telephone keypad on one side of the device, and a remote control keypad on the other side. To avoid accidental or inadvertent actuation of keys on one side of the device while intending use of the other side, a switch control element is provided to permit selective actuation of the telephone keypad or the remote control keypad. An off switch is provided to conserve battery power when the teleremote device is not in use. Indicator lights may also be provided to show which side of the device is actuated.

20 Claims, 2 Drawing Sheets





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<p>(21) Numéro de la demande internationale: PCT/FR97/00623</p> <p>(22) Date de dépôt international: 9 avril 1997 (09.04.97)</p> <p>(30) Données relatives à la priorité: 96/04675 15 avril 1996 (15.04.96) FR</p> <p>(71) Déposant (pour tous les Etats désignés sauf US): INFO TELECOM (FR/FR); Rue de la Forêt, F-67550 Vendenheim (FR).</p> <p>(72) Inventeur; et (75) Inventeur/Déposant (US seulement): SCHOTT, Michel (FR/FR); Rue de la Forêt, F-67550 Vendenheim (FR).</p> <p>(74) Mandataire: BUREAU D.A.CASALONGA JOSSE; 8, avenue Percier, F-75008 Paris (FR).</p>	<p>(81) Etats désignés: BR, CA, MX, US, brevet européen (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p>Publiée <i>Avec rapport de recherche internationale.</i> <i>Avant l'expiration du délai prévu pour la modification des revendications, sera republiée si de telles modifications sont reçues.</i></p>	
<p>(54) Title: INTERACTIVE GAME DEVICE COMPRISING A BROADCAST INFORMATION RECEIVER, PARTICULARLY A RADIO</p>		
<p>(54) Titre: DISPOSITIF INTERACTIF DE JEU COMPORTANT UN RECEPTEUR D'INFORMATIONS RADIODIFFUSEES, EN PARTICULIER UN POSTE RADIOPHONIQUE</p>		
<p>(57) Abstract</p>		
<p>The game device comprises a receiver (14) having a communications-receiver interface (81) capable of receiving a set of digital data representing a game, a keyboard (4) enabling the input of external data, a display unit (2), a processing unit (20) connected to the communication-receiver interface, to the keyboard, and to the display unit, reception means (3) to receive a broadcast primary signal containing basic data items to be restored at least in audible form and at least temporarily one or more service data items, separation means (18) connected to the reception means to extract from the primary signal received the said basic data items and the said item or items of service data and transmit them to the processing unit (20), restoration means (5) to restore the basic data items at least in an audible form, the processing unit enabling the running of the game at the receiver on the basis of the set of game data, of external data, and of at least part of the service data, the displaying unit (2) displaying at least one parameter relating to the running of the game.</p> <div data-bbox="812 1239 1380 1638"> </div>		



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(12) **United States Patent**
Tanskanen

(10) **Patent No.:** **US 6,579,184 B1**
(45) **Date of Patent:** **Jun. 17, 2003**

(54) **MULTI-PLAYER GAME SYSTEM**

(75) **Inventor:** **Erkki Tanskanen, Luhtipolku (FI)**

(73) **Assignee:** **Nokia Corporation, Espoo (FI)**

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) **Appl. No.:** **09/460,340**

(22) **Filed:** **Dec. 10, 1999**

(51) **Int. Cl. 7** **A63F 13/00**

(52) **U.S. Cl.** **463/41**

(58) **Field of Search** **463/40, 41, 42**

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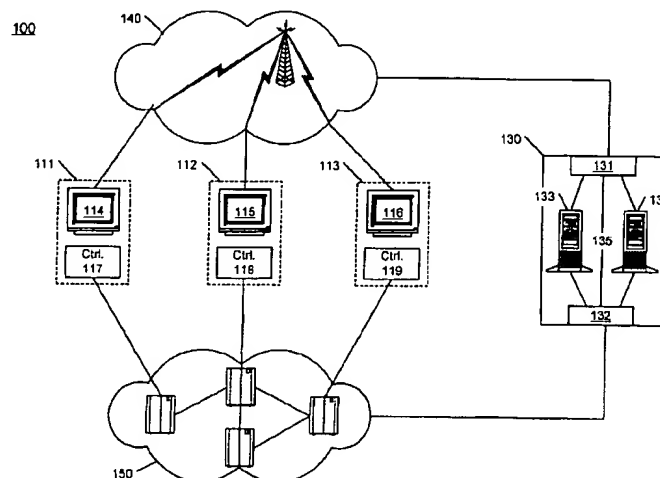
Primary Examiner—Michael O'Neill

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(57) **ABSTRACT**

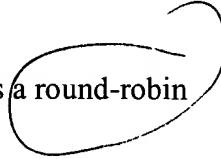
A multi-player video game server includes a player control interface, a video interface, and a game engine. The player interface couples the game server to a network and can receive game control data over the network from multiple players. Each player has a game control device at which game control data can be input. The video interface couples the game server to a video transmission network and transmits game display video over the video transmission network. The game engine is coupled to the player interface and the video interface and includes a processor and a memory. The memory stores multi-player video game instructions that configure the processor to process game control data and render the game display video that is then provided to the video interface for transmission over a video network. A multi-player video gaming method includes receiving a number of player input data connections at a game server. Each of the game control data stream includes player input data from a different player of a multi-player video game. An output display image is generated at the game server by executing video game instructions to process the player input data connections from the multiple players as inputs to the same multi-player game. The output display image is then transmitted over a channel of a video transmission network.

7 Claims, 4 Drawing Sheets



Nov/2000

What is claimed is:

1. A wireless telephone apparatus, comprising: a first wireless telephone having switchable data and voice mode communication capabilities, said data mode including a competitive activity mode involving communication with a second wireless telephone to engage in a competitive activity; and a wireless telephone communication system communicating with said first wireless telephone, recognizing when said telephone is in the competitive activity mode at a time when a voice telephone call to said first wireless telephone is being attempted, and sending a notification of the voice telephone call to said first wireless telephone informing a user of said first wireless telephone about the voice telephone call.
2. An apparatus as recited in claim 1, wherein said wireless telephone communication system sends a notification to the second wireless telephone if the user of said first wireless telephone accepts the voice telephone call.
3. An apparatus as recited in claim 1, wherein said competitive activity is a game.
4. An apparatus as recited in claim 1, wherein said wireless telephone communication system suspends the competitive activity while the user of said first wireless telephone is taking the voice telephone call.
5. An apparatus as recited in claim 1, wherein said wireless telephone communication system drops said first wireless telephone from the competitive activity when the user of said first wireless telephone accepts the voice telephone call.
6. An apparatus as recited in claim 1, wherein said competitive activity is a round-robin activity. 
- ✓ 7. An apparatus as recited in claim 1, wherein said competitive activity is a turn-taking activity.
- ✓ 8. An apparatus as recited in claim 7, wherein the turn-taking activity is a game.
9. A method comprising: determining whether a first multimode communication device is in a data mode which is a competitive activity mode involving communication with a second multimode communication device to engage in a competitive activity, when a voice telephone call to a user of the first multimode communication device is attempted; and informing the user of the first multimode communication device about the voice telephone call.
10. A method as recited in claim 9, further comprising: informing a user of the second multimode communication device if the user of the first multimode communication device accepts the voice telephone call.
11. A method as recited in claim 9, wherein the first multimode communication device is

a wireless communication device.

12. A method as recited in claim 11, wherein the wireless communication device is a wireless telephone.

13. A method as recited in claim 9, further comprising: suspending the competitive activity while the user of the first multimode communication device is conducting the voice telephone call; and restarting the competitive activity mode when the user of the first multimode communication device has completed the voice telephone call.

14. A method as recited in claim 9, wherein the competitive activity is a game.

15. A method as recited in claim 9, wherein the competitive activity is a debate.

16. A method as recited in claim 9, wherein the competitive activity is a fantasy sports draft.

17. A method as recited in claim 9, wherein the competitive activity is a round-robin activity.

18. A method as recited in claim 9, wherein the competitive activity is a turn-taking activity.

19. A computer readable storage controlling a computer by determining whether a first multimode communication device is in a data mode which is a competitive activity mode involving communication with a second multimode communication device to engage in a competitive activity, when a voice telephone call to a user of the first multimode communication device is attempted, and informing the user of the first multimode communication device about the voice telephone call.

20. A computer readable storage as recited in claim 19, further informing a user of the second multimode communication device if the user of the first multimode communication device accepts the voice telephone call.

21. A method comprising: determining whether a first multimode communication device is in a data mode which is a sequential participation mode involving communication with a second multimode communication device to engage in a sequential participation activity, when a voice telephone call to a user of the first multimode communication device is attempted; and informing the user of the first multimode communication device about the voice telephone call.

22. A method as recited in claim 21, further comprising: informing a user of the second multimode communication device if the user of the first multimode communication device accepts the voice telephone call.

23. A method as recited in claim 22, wherein the sequential participation activity is a

competitive activity.

24. A method as recited in claim 23, wherein the competitive activity is a game.

25. A method of managing a competitive activity involving a first competitor having a first multimode communication device and one or more other competitors, comprising: providing the first competitor with a predetermined competitor list of one or more potential competitors, which has been stored in advance; requesting the first competitor to select at least one competitor from the predetermined competitor list as a second competitor, via the first competitor's first multimode communication device, the second competitor having a second multimode communication device; and managing a competitive activity involving the first competitor and the selected second competitor via the first and second multimode communication devices.

26. A method as recited in claim 25, further comprising determining whether the selected second competitor is available, and providing an indication of availability on the predetermined competitor list.

27. A method as recited in claim 25, wherein the first competitor list includes a list of friends with whom the first competitor desires to compete, stored in advance by the first competitor.

28. A method as recited in claim 25, wherein the predetermined competitor list includes a list of teams of competitors, so that a team competition can be formed.

29. A method as recited in claim 25, further comprising: determining whether the first multimode communication device is in a data mode corresponding to the competitive activity when a voice telephone call to the first competitor is attempted; and informing the first competitor via the first multimode communication device, about the voice telephone call.

30. A method as recited in claim 29, further comprising: informing the second competitor via the second multimode communication device, if the first competitor accepts the voice telephone call.

31. A method as recited in claim 30, further comprising: suspending the competitive activity while the first competitor is conducting a voice telephone call; and restarting the competitive activity when the first competitor has completed the voice telephone call.

32. A method as recited in claim 25, wherein the competitive activity is a game.

33. A method as recited in claim 25, wherein the competitive activity is a debate.

34. A method as recited in claim 25, wherein the competitive activity is a fantasy sports draft.

35. A method as recited in claim 25, wherein the competitive activity is a round robin activity.

36. A method as recited in claim 25, wherein the competitive activity is a turn-taking activity.

37. An apparatus coupled to a communication network, comprising: a first multimode communication device operated by a first competitor and coupled to the communication network; a second multimode communication device operated by a second competitor and coupled to the communication network; a competition control unit storing a first predetermined competitor list corresponding to the first multimode communication device, and arranging competitive activities involving multimode communication devices based on information stored in said competition control unit; and a presence manager determining when said first and second multimode communication devices are accessible, said competition control unit arranging a competitive activity involving said first and second multimode communication devices when said first multimode communication device makes a request to said competition control unit, and when the first predetermined competitor list in said competition control unit indicates a mutual agreement between said first and second users to compete with one another.

38. An apparatus as recited in claim 37, wherein said first and second multimode communication devices comprise first and second wireless telephones.

39. An apparatus as recited in claim 37, wherein the first predetermined competitor list stored in said competition control unit includes a list of teams of competitors, so that said competition control unit can arrange a competitive activity involving teams.

40. An apparatus as recited in claim 37, wherein the competitive activity is a round-robin activity.

41. An apparatus as recited in claim 37, wherein the competitive activity is a game.

42. An apparatus as recited in claim 37, wherein the competitive activity is a debate.

43. An apparatus as recited in claim 37, further comprising a call waiting server advising the first competitor via said first multimode communication device when a voice telephone call to said first multimode communication device is attempted.

44. An apparatus as recited in claim 43, wherein said competition control unit informs the second competitor via said second multimode communication device if the first competitor accepts the voice telephone call.

45. A computer readable storage controlling a computer to manage a competitive activity involving a first competitor having a first multimode communication device and a second competitor having a second multimode communication device, by providing the first competitor with a predetermined competitor list of one or more potential competitors,

which has been stored in advance, requesting the first competitor to select at least one competitor from the predetermined competitor list as a second competitor, via the first competitor's first multimode communication device, and arranging a competitive activity involving the first competitor and the selected second competitor via the first and second multimode communication devices.

Description
